

Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No. 8114

PROJECT COMPLETION REPORT

KOREA

**FIRST POPULATION PROJECT
(LOAN 1774~5 KO)**

OCTOBER 25, 1989

**Population and Human Resources Operations Unit
Country Department II
Asia Regional Office**

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

LIST OF ACRONYMS USED IN THE REPORT

CMCHC	-	Comprehensive Maternal and Child Health Center
EPB	-	Economic Planning Board
FP	-	Family Planning
GROK	-	Government of the Republic of Korea
IEC	-	Information, Education and Communications
KAVS	-	Korean Association for Voluntary Sterilization
KHDI	-	Korean Health Development Institute
KIFP	-	Korean Institute for Family Planning
KIPH	-	Korean Institute for Population and Health
MCH	-	Maternal and Child Health
MOHSA	-	Ministry of Health and Social Affairs
NIH	-	National Institute of Health
OSROD	-	Office of Supply, Republic of Korea
PCR	-	Project Completion Report
PPFK	-	Planned Parenthood Federation of Korea
TB	-	Tuberculosis

COUNTRY EXCHANGE RATES

Name of Currency (abbreviation)	WON (W)
Year:	
Appraisal Year Average 1979	Exchange Rate: US\$1-W 485
Intervening Years Average 1980-86	US\$1-W 765
Completion Year 1987	US\$1-W 823

KOREA

FISCAL YEAR

January 1 - December 31

Office of Director-General
Operations Evaluation

October 25, 1989

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Completion Report on Korea
First Population Project (Loan 1774-5 KO)

Attached, for information, is a copy of a report entitled "Project Completion Report on Korea - First Population Project (Loan 1774-5 KO)" prepared by the Asia Regional Office. No audit of this project has been made by the Operations Evaluation Department at this time.

Attachment

A handwritten signature in black ink, appearing to be "H. Han", is written over a large, stylized capital letter "P".

KOREAPOPULATION PROJECT (Loan 1774-5 KO)PROJECT COMPLETION REPORTTABLE OF CONTENTS

	<u>Page No.</u>
Preface	i
Basic Data Sheet	ii
Evaluation Summary	iv
1. INTRODUCTION	1
Sectoral Background	1
Institutional Responsibilities	2
2. PROJECT FORMULATION	3
Project Identification and Preparation	3
Project Objectives	5
Project Components	5
Organizational Arrangements	6
3. IMPLEMENTATION	6
Effectiveness and Start-up	6
Revisions to the Project	8
Progress of Implementation	10
Project Costs and Financing	13
Disbursement	14
Procurement	14
Compliance with Loan Covenants	14
Reporting	15
4. PROJECT AND PROGRAM IMPACT	15
Project Impact	15
Policy Changes	17
National Family Planning Program	18
Progress of Health Status	18
5. INSTITUTIONAL PERFORMANCE	18
Borrower's Performance	18
Bank Performance	19
The Government/Bank Working Relationship	19
6. CONCLUSIONS AND LESSONS LEARNED	20
Conclusions	20
Lessons Learned	21

TABLE OF CONTENTS (Cont'd)

<u>ANNEXES</u>	<u>Page no.</u>
Annex 1 Progress of Project Construction Components	23
Annex 2 List of Facilities Constructed Under the Project	24
Government MCH Centers	24
PPFK MCH/FP Centers and Studio	25
CMCH Center	25
KAVS Centers	25
Annex 3 Target vs Accomplishment in Annual Number of Trainees of Multipurpose Health Worker Training	26
Annex 4 Project Costs:	27
Original Project by Category	27
Original Project by Program	28
CMCHC Component by Category	29
CMCHC Component by Program	30
Annex 5 Disbursements	32
Annex 6 Compliance with Loan Conditions	33
Annex 7 Comparison of Stated Project Objectives and Actual Outcomes	36
Annex 8 Operating Outcome MCH Centers	37
Annex 9 Production of IEC Materials	38
Operational Outcome of Mobile Vans	39
Annex 10 International Training Programs	40
Annex 11 Vital Statistics and Population Composition 1960-85	41
Annex 12 Contraceptive Services through Government Supported Programs	42
<u>Attachment I</u> Comments from the Borrower	43

MAP: IBRD 21478

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

PREFACE

This is a Project Completion Report (PCR) for a Population Project in Korea for which Loan 1774-5 KO was approved on December 12, 1979 in the amount of US\$30 million. The loan was closed on December 31, 1987, 3 1/2 years behind schedule. It was fully disbursed, and the last disbursement was on July 7, 1988.

The PCR was prepared by the Population and Human Resources Operations Unit, Country Department II of the Asia Regional Office. This report is based on the borrower's project completion report, documents contained in the project files and interviews with the Bank staff involved in implementation.

The PCR was read by the Operations Evaluation Department (OED). The draft PCR was sent to the Borrower for comments and they are attached to the report (Attachment 1).

PROJECT COMPLETION REPORT BASIC DATA SHEET

KOREA: POPULATION PROJECT (LOAN 1774-5 KO)

BASIC DATA SHEET

	<u>Appraisal expectation</u>	<u>Actual or current estimate</u>
Total Project Cost (US\$ million)	91.5	68.2
Underrun (%)		25.0
Loan/Credit Amount (US\$ million)	30.0	30.0
Disbursed		30.0
Cancelled		-
Repaid to April 1, 1989		11.6
Outstanding April 1, 1989		18.4
Date physical components completed	06/30/84	12/31/87 1/
Proportion completed by above time (%)		
Overrun or (Underrun)		
Original project		(27) 2/
Additional component		100
Economic Rate of Return	N/A	N/A
Financial Performance	N/A	N/A
Institutional Performance	Good	Good

OTHER PROJECT DATA

<u>Item</u>	<u>Original Plan</u>	<u>Revised</u>	<u>Actual or est. actual</u>
First mention in files or timetable			1/20/76
Government application			9/21/77
Negotiations			10/31/79
Board approval			12/11/79
Loan Agreement Date			12/27/79
Effectiveness Date			3/21/80
Closing Date	6/30/84	12/31/85	12/31/87
Borrower	Government of the Republic of Korea		
Executing Agencies	Ministry of Health and Social Affairs Planned Parenthood Federation of Korea Korean Institute for Population and Health		
	National Institute of Health		
Fiscal Year of Borrower	January 1 - December 31		
Follow-on Project Name	Nil		

1/ The original closing date was revised to December 31, 1985, and then to December 31, 1987, to allow completion of a major component added during project implementation.

2/ Some components scaled down due to population changes in project areas.

MISSION DATA

Task	Month/ Year	No. of Weeks	No. of Persons	Staff Weeks	Date of Report
Reconnaissance	5/76	1	2	2	6/9/76
Identification	9/76	2	2	4	10/18/76
Identification	4/76	1/3	2	4	5/16/76
Preparation	11/77	2	4	8	1/12/78
Preparation	8/78	4	1	4	9/19/78
Preparation	1/79	2	4	8	3/27/78
Appraisal	4/79	4	4	16	6/4/79
Supervision 1	2/80	3	4	12	3/11/80
Supervision 2	10/80	3	4	12	11/5/80
Supervision 3	4/81	2	2	4	6/1/81
Supervision 4	9/81	2	2	4	10/15/81
Supervision 5	4/82	3	2	6	6/23/81
Supervision 6	12/82	2	2	4	1/27/83
Supervision 7	5/83	2	3	6	7/14/83
Supervision 8	11/83	2	2	4	12/14/83
Supervision 9	5/84	2	2	4	6/4/84
Supervision 10	3/85	2	3	6	5/3/85
Re-appraisal	8/85	3	4	12	9/17/85
Supervision 11	4/86	2	2	4	5/13/86
Supervision 12	11/86	3	2		7/12/86
Supervision 13	5/87	2	2	4	7/7/87
Supervision 14	12/87	2	2	4	1/22/88

Disbursements 1/
(US\$ million)

Calendar Year	Appraisal Estimates	Appraisal Cumulative	Actual	Cumulative Actual	Actual as % of Cumulative Apr.
1980	0.3	0.3	0	0	0
1981	7.9	8.2	0	0	0
1982	19.7	27.9	1.47	1.47	5.3
1983	2.1	30.0	4.15	5.62	18.7
1984			6.70	12.32	
1985			0	12.32	
1986			6.47	18.79	
1987			8.32	27.11	
1988			2.89	30.00	

1/ See notes to Annex 5

STAFF INPUT (Staff weeks)

FY	78	79	78	79	80	81	82	83	84	85	86	87	88	Total
Preappraisal	8.8	22.0	19.8	42.1										92.7
Appraisal				52.1	20.6									72.7
Negotiation					19.9									19.9
Supervision					20.1	30.2	19.9	21.2	19.4	13.6	42.8	14.8	6.7	188.7
Other										2.0				2.0
<hr/>														
TOTAL	8.8	22.0	19.8	94.2	60.6	30.2	19.9	21.2	19.4	15.6	42.8	14.8	6.7	576.0

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

EVALUATION SUMMARY

Objectives

i. In the mid-1970s, the Government of the Republic of Korea faced the twin concerns of slowing its rapid population growth and improving the health status of its population, particularly those in the underserved rural areas. While a very successful family planning program had been in existence since 1962, the pace of the program had slowed by 1976, and demographic trends like the rapid increase in the proportion of women of reproductive age meant that even if a net reproduction rate equal to one could be achieved in the near future, the country's population would more than double by the middle of the next century. This was disturbing for a country with limited natural resources. The health of the population was also at issue. Although mortality levels had dropped and the incidence of some major diseases had declined, morbidity due to gastroenteritis and respiratory diseases continued to be a serious problem. Deficiencies in maternal and child health were particularly striking. In 1975, the infant and maternal mortality rates were still high, at 38 per thousand live births and 6 per 10,000 births, respectively. Prenatal and postnatal services were often unavailable, and immunization levels were low. The Government's Fourth Five-year Development Plan (1977-81) recognized and began to address these concerns, and Bank assistance was requested for a project to support the Plan's population and health programs.

ii. After three years of preparation, a population project was developed to address the levelling off of family planning performance and to improve the health status of mothers and children, especially in rural areas. The project was designed to: (a) expand and strengthen the national health and family planning (FP) delivery system by building and equipping 91 rural Maternal and Child Health (MCH) Centers and 11 urban Planned Parenthood of Korea (PPFK) Centers; (b) train 8,000 nurses and field workers and integrate the rural health and family planning services provided by them; (c) expand the country's system of information, education and communications (IEC) for population and health by financing new video production facilities, mobile vans and production costs; and (d) support operational research activities linked to MCH operations. The project loan was approved on December 12, 1979.

Implementation Experience

iii. Project implementation was initially delayed for two years by a lack of counterpart budgetary funds. However, once funds became available, the project was implemented with some speed and was substantially completed in the subsequent three and one half years, with the closing date extended by 18 months, from June 30, 1984 to December 31, 1985. The closing date was then further extended by two years to implement an additional component, using significant loan savings that resulted from a major devaluation of the won, the reduction of some project components in the face of changing demand patterns, and lower-than-expected construction costs due to keen contractor competition during the recessionary period. These funds were used to create the second tier of MCH care

by supporting development of 11 comprehensive Maternal and Child Health Centers (CMCHC) and related clinical and community health research. The higher-level medical facilities were to serve as regional referral centers for more complicated cases and would train staff of the primary MCH clinics, provide them with specialist advice and carry out research. Implementation progressed rapidly and the reprogrammed project was completed as envisioned.

iv. The project was managed by the Ministry of Health and Social Affairs (MOHSA) through its Family Health Division. The other principal agencies involved were PPFK for its 11 urban MCH centers, mobile units and IEC program, the National Institute of Health (NIH) for staff training, and the Korean Institute for Population and Health (KIPH) for studies and program monitoring. The CMCHCs were attached to private nonprofit hospitals since no suitable public sector facilities existed. Interagency cooperation was good throughout the life of the project.

v. Even with the addition of another major component, the project had a total cost of only US\$68.2 million, substantially less than the appraisal estimate of US\$91.5 million. The Bank loan of US\$30 million covered the total foreign exchange cost of the project while the Government financed the remaining US\$38.2 million. Project funds were on-lent to the private hospitals implementing the CMCHC component on the same terms and conditions as the Bank loan.

Results

vi. The project has yielded significant benefits. It strengthened the country's health delivery system by substantially expanding the provision of MCH services and, through institutional reform and staff training, improved the quality of the MCH/FP services provided. The full impact of this service expansion will not be known for some time, but data from the clinics indicate improved services and usage. The family planning program benefitted from the expanded IEC program that developed approaches and strategies for the younger and more sophisticated clientele. The IEC activities contributed to the improvement of family planning program performance and the achievement of a replacement fertility level by 1984, more than eight years earlier than originally predicted.

vii. The CMCHC component strengthened the creation of a three-tier regional health care system that could fit into and provide services under the universal health insurance that is expected to be extended nationwide in 1989. This three-tier system is expected to help improve patient referral and upgrade the supervision and training of health workers by establishing a viable working relationship between the Government's primary care system and the private sector secondary and tertiary health care system.

Sustainability

Most components of this project are likely to be fully sustainable. The Government has been and remains fully committed to the goals of this project. The maternal and child health clinics and other facilities established under the project are fully in use and adequately funded. The Government has adopted a program of national health insurance that would further increase the need for these clinics as service centers.

Findings and Lessons Learned

viii. The most important lesson learned under the project is that changes in the population and health sectors can occur rapidly and call for flexibility in the implementation of population programs and projects. When the time between project conception and loan closing is a decade or more, original project assumptions may become outdated mid-way in the life of the project, necessitating changes in the project design. In the case of this project, even as the project was being developed, changes were occurring in the country's health care needs and institutional roles: the public sector provision of basic primary care and implementation of preventive measures were giving way to the provision of sophisticated primary and secondary care, primarily by the private sector. National health care planning was also developing an overall nationwide health care system that would establish geographic service catchment areas and link public and private sector services at all three levels of health care. In recognition of the changing sectoral environment, both the Government and the Bank showed flexibility in their approaches to the Population Project. Time has shown the wisdom of the decision to reprogram the project by adding a component which supported the original project objective of improving MCH care, but did so by improving the secondary care facilities of private hospitals, which had taken the lead role in the provision of health care to the population. The dynamic nature of health and population programs, especially in the Asia Region, will continue to require flexible responses from the Bank in regard to project content. The Korean experience provides useful guidelines for this.

ix. Other lessons learned include:

- (a) the importance of reaching agreement with the borrower on project strategy and content as soon as possible once the decision to implement a project is made. The failure to reach such agreement delayed preparation of the Population Project;
- (b) the need to avoid overdesign and excessive detail in project preparation. Some components of the Population Project were dropped after reconsideration during the first year of implementation. These activities need not have been included in the first place -- they were desirable but not critical;
- (c) project decisions should be made rapidly. Internal bureaucratic considerations, first within the Government and later in the Bank, delayed concurrence on the addition of the CMCHC component for almost two years. The project could have closed a year earlier had the institutional debate not taken place and the Bank responded to the Government's proposal without undue delay; and
- (d) the inclusion of non-governmental agencies (in this case, PPFK) and the private health sector in the project was beneficial, since it permitted not only significant expansion of service availability beyond the government health sector but also the testing of new methods of expanding and upgrading services.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

I. INTRODUCTION

Sectoral Background

1.1 By the mid-1970s, the Republic of Korea had made significant progress in moderating the growth of its population. The National Family Planning Program, initiated in 1962, was from the beginning at the cutting edge of change, a "model" program notable for its innovations and varied, well-coordinated strategies. Partly as a result of the program, the country's crude birth rate declined from 44 per thousand population in 1960 to 28 per thousand in 1976, the total fertility rate dropped from 6.3 children per woman in 1960 to 3.2 children in 1976, contraceptive use increased from 6% of married women in 1962 to about 44% in 1976, and the population growth rate declined from 3.0% in 1960 to 1.7% in 1979.

1.2 In 1976, however, as program performance was being reviewed and future directions considered for the Fourth Five-Year Plan (1977-81), several concerns emerged. First, with the exception of Bangladesh and a few city-states, Korea was the most densely populated country in the world, with about 1,650 persons per sq km of agricultural land. Furthermore, if its population continued to grow at 1.7% a year, it would increase to about 53 million by the year 2000 due to changing demographic trends such as a rapid increase in the proportion of women of reproductive age and little scope for further raising the mean age of marriage. Even assuming that a net reproduction rate equal to one could be achieved by 1985, Korea's population would more than double by the middle of the next century. This was particularly disturbing for a country with limited natural resources. Second, only about 43% of women who desired no more children practiced contraception, indicating significant unmet demand for family planning services. Third, earlier expectations that emigration would play a major role in curbing population growth were found to be wrong, as the actual effect was marginal -- a mere 0.1% of growth.

1.3 Overall, it was concluded that the population program, like many others in Asia at this time, had reached a plateau in acceptance, necessitating a more intensive effort and new strategies under a second-stage program which would be needed to attract new acceptors. Family planning services had to be made more effective and accessible, with more emphasis placed on integrating services more closely with other social programs and on incentives favoring smaller families. Improved access to services meant a greater number of facilities, better training of personnel, better distribution of time among fieldworkers so that they could reach more people, fewer constraints to clinic visits, establishment of priorities among population target groups to be visited by workers, and better information, education and communications (IEC) activities to increase knowledge about facilities and to motivate clients to visit them. The Population Project therefore assisted the Government to reorient its population program in this way.

1.4 Most family planning fieldworkers at this time were nurse-aids expected only to do some motivational work, to supply clients with contraceptives, and to refer clients to health centers when needed. They were not qualified to provide elementary health services or to deal with the side effects of contraceptive usage. Each worker covered a population of about 10,000 to 13,000 people dispersed in rural areas and consequently spent much of his/her working time in travel. Under the target system being used, the workers confined their visits to people likely to accept family planning services -- those with many children and past users -- and paid little attention to young married couples with few or no children, who offered the greatest potential for delaying and averting births. Furthermore, the high turnover rate of workers, at about 30%, due to poor pay and low prestige, wasted training and lowered worker effectiveness. To help raise worker effectiveness, the project's approach of the new population program emphasized the full integration of health and family planning services, with the existing unipurpose family planning workers retrained as multipurpose health workers, to provide more services over an area only one third the size then served.

1.5 In so doing, the refocused program was also able to address several major health needs. Although mortality had been reduced in Korea, morbidity due largely to gastroenteritis and respiratory diseases continued to be a serious problem, particularly in rural areas where access to potable water and to health facilities was far below the levels in urban areas. Deficiencies in maternal and child health services were especially striking. In 1975, the infant and maternal mortality rates were still high, at 38 per thousand live births and 6 per 10,000 births, respectively. Use of prenatal and postnatal services by the population at risk was low, as were immunization levels for tuberculosis, measles and polio. While a maternal and child health (MCH) program had been established, it was focused on family planning. Only eight MCH centers existed nationwide to provide the full range of MCH services, including ante- and post-natal services for mothers, health care for infants, and assistance with delivery. Health centers focussed on communicable disease control, food hygiene and sanitation, and health facilities operated by provincial governments suffered from inadequate budgets and poorly trained staff.

1.6 The Fourth Five-Year Development Plan recognized these problems and set the following objectives: (a) establishment of a health care delivery system through the development and expansion of low-cost health services for the urban poor and rural residents, and a more even geographical distribution of medical resources; (b) intensified public health measures, particularly in preventive medicine including disease control and MCH; and (c) better sanitation and water supply in rural areas and minimized industrial pollution. The refocused family planning program, supported by the Population Project, was aimed at several of these objectives through its emphasis on expansion of MCH services and its concentration on rural areas.

Institutional Responsibilities

1.7 A number of agencies were involved at this time in family planning (FP) activities in Korea. The Ministry of Health and Social Affairs (MOHSA), through its Bureau of Maternal and Child Health, was the major agency in charge of implementing the family planning program. The program used some 2,400 designated service points located in government health centers, designated

hospitals and clinics, and physicians' offices. Client education and recruitment were done by family planning workers attached to health centers and subcenters. The Ministry of Home Affairs (MOHA), through the provincial and local governments, was responsible for financing and operating a network of provincial and municipal hospitals as well as the health centers and subcenters providing family planning services. The Korean Institute for Family Planning (KIFP) was a semi-autonomous organization supervised by MOHSA and responsible for all training in family planning, technical guidance in family planning for health centers and subcenters, and research and evaluation in the fields of family planning and demography. The Government's efforts were reinforced by the Planned Parenthood Federation of Korea (PPFK), a voluntary non-profit organization which worked with the Government by providing family planning services in urban areas through 15 clinics as well as providing all IEC support for the family planning program. Finally, the New Village Movement (Saemaul Undong), which was initiated in 1970 to promote self-improvement among the rural population, supported the diffusion of health and family planning information through women's clubs as part of its efforts to improve the status of women.

2. PROJECT FORMULATION

Project Identification and Preparation

2.1 The Bank's dialogue with the Government on the population and health sectors began during preparation of its 1976 Special Report on Human Resource Development in Korea which included chapters on both sectors. At that time, the Government was already aware of the implications of not achieving lower rates of population growth as well as the need for improved health care, particularly for mothers and children. Discussions with a Bank identification mission in September 1976 therefore led to agreement on a project to address inter-related health and population concerns using an integrated approach aimed at (a) strengthening family planning program efforts by providing expanded high quality services to the urban and rural poor; and (b) reducing high infant, child and maternal mortality levels through expanded and improved MCH services. The two strategies reinforced each other and led to the development of an integrated maternal and child health/family planning project which was consistent with government objectives.

2.2 The process of project preparation took much longer than expected. Although a Bank preparation mission visited Korea in November 1977, project preparation did not move ahead in earnest until January 1979, so that appraisal could take place in April 1979. This extended preparation period was caused by the inclusion in the project of several innovative features which required longer than usual discussion both within the Government and the Bank before a consensus could be reached on them. The most contentious issue for the Government was the proposed integration of family planning and health services under the project. At this time, the conventional approach in Korea was for narrowly focussed family planning services; health expenditures were regarded as "consumption and welfare" and were given low priority over direct economic investments. The Government's agreement to include major investments in primary health care in the project was therefore a significant policy change and entailed lengthy debate. Discussions in the course of project preparation therefore centered on this and the following other issues:

- (a) the design of a family planning program at the second stage (rather than the inception) of program implementation when demographics were changing;
- (b) the integration of significant maternal and child health activities with family planning services, based on the principle that improved maternal health and infant welfare would enhance fertility decline and strengthen contraceptive use;
- (c) the approach to be taken in supporting a non-government organization (PPFK) under the project and the provision of physical facilities;
- (d) the design of complex project components and introduction of innovative features such as the "at risk" approach to MCH care, which gives special attention to those particularly in need within a framework of improved health care for all;
- (e) redevelopment of project proposals midway through project preparation to conform better to project objectives and to keep within the loan ceiling approved by the National Assembly; and
- (f) government arrangements to on-lend loan funds to private health facilities to carry out project activities.

2.3 Project preparation was coordinated by the Bureau of Maternal and Child Health in MOHSA, and by the Social Sector Division in the Economic Planning Board (EPB). A task force consisting of representatives of MOHSA, EPB, PPFK and KIFP was established for project preparation and the process moved ahead rapidly after a new Bureau Director took office in 1978. MOHA was also involved in preparation through the provincial governments which helped plan the integrated health activities.

2.4 The project was designed to assist Korea in its efforts to reduce the rate of growth of population and, at the same time, to improve family health, reduce maternal mortality, and reduce infant and child mortality and morbidity. It was based on the following premises: that a reduction of infant mortality would reduce fertility; that there were advantages in delivering family planning services in conjunction with health services, especially MCH services; and that there is a higher rate of contraceptive practice among women who receive instruction in nutrition and family planning in the day care centers which their children attend. Essential to the project design was the outreach of service delivery into the community, utilizing the "at risk" approach. Project design was also aimed at increasing both the supply of and the demand for family planning services and integrating these services with other social services.

2.5 Project design and preparation were innovative and consistent with emerging sector knowledge and developing strategies for second-stage family planning programs. The decision to undertake a major expansion of health facilities to provide better access to services for the rural population and for greater equity was appropriate. While the premise shaping project design -- that improved maternal health and infant welfare would enhance fertility

decline and strengthen contraceptive practice -- was a relatively new idea at the time, its use in the project was justified by subsequent experience.

Project Objectives

2.6 The project was intended to assist the Government to reach its objective of reducing the birth rate from 24.3 in 1976 to 23.9 by 1981 and 22.9 by 1986 by increasing the number of contraceptive users from 2.0 million in 1976 to 3.1 million in 1981 and 3.9 million in 1986. The project also aimed at increasing the number of births attended by medical personnel from 40% in 1978 to 85% in 1982 and 100% in 1986; reducing maternal mortality from 6.3 per 10,000 births in 1975 to 3.0 in 1986; and reducing infant mortality from 38 deaths per 1,000 live births in 1976 to 14 in 1986. These objectives were thought to be difficult but not impossible to reach given the strong commitment of the Government to its health and population objectives.

Project Components

2.7 The project comprised the following components:

- (a) Expansion of the Health and Family Planning Delivery System through: the construction, furnishing and equipping of 91 MCH/FP centers, each attached to an existing health center, and upgrading those health centers; the addition of day care centers to 68 of the centers; the construction and equipping of 11 MCH/FP clinics to replace premises now rented by PPFK; the provision of 13 mobile family planning units to provide services in remote areas; and the provision of 68 four-wheel drive vehicles to transport patients to and from MCH/FP centers;
- (b) Training of Health and Family Planning Staff, including the construction of additional training facilities and a dormitory at KIFP; provision of facilities and equipment for the production of FP and midwifery training materials; retraining about 4,000 existing TB, MCH, and family planning fieldworkers as well as 4,000 new recruits as multipurpose workers, also able to perform midwifery; technical and supervisory training for provincial FP supervisors, senior health center staff and other clinic staff; training in family planning education for social workers and civic organization representatives; and training of about 400 hospital and health center staff in IEC, including use and maintenance of equipment provided by the project;
- (c) Expansion of IEC Activities in Health and Family Planning through provision of 158 video tape players for hospitals, the PPFK clinics and the new MCH/FP centers as well as 202 film/slide projectors and cassette tape recorders/players for the health centers; provision of IEC equipment and materials for the 13 mobile family planning units as well as pamphlets to be distributed by fieldworkers and clinics; expansion of PPFK's capacity to make IEC materials, including construction and equipping of a film and video production studio as well as the cost of materials and incremental staff; and

a one-month study tour plus salary support during the project period for the IEC Coordinator at MOHSA who would help develop mass media programs and advertisements;

- (d) Strengthening and Expanding Research and Evaluation by establishing a reporting system for the new MCH centers; evaluation of the midwifery training program for fieldworkers; and evaluation of MCH/FP activities carried out under the project; and
- (e) Strengthened Project Implementation Capacity by providing MOHSA with additional staff, equipment, vehicles and per diem to plan, execute and supervise the project.

Organizational Arrangements

2.8 The MCH Bureau of MOHSA coordinated project activities. A Population Loan Section was established within the Bureau's MCH Division for day-to-day management of the project, staffed by coordinators for construction, training and IEC as well as an accountant. The Director General of the Bureau of MCH was designated Project Director and the Director of the MCH Division in the Bureau was the Project Executive Director. A Project Advisory Committee comprising representatives of the implementing agencies as well as universities, the Korean Development Institute and the Korean Health Development Institute was established to advise the Project Director. Project implementation responsibilities were as follows. The provincial governments, PPFK and KIFP, under the direction of MOHSA, were responsible for the construction of physical facilities and procurement of furniture, equipment and vehicles. PPFK, under MOHSA supervision, was responsible for the IEC component, KIFP was responsible for family planning training and the conversion of community health workers into multipurpose workers, and MOHSA was responsible for midwifery training and monitoring of research and evaluation activities, which would be contracted out to public and private research groups.

3. IMPLEMENTATION

Effectiveness and Start-up

3.1 The project loan for US\$30.0 million was approved by the Board on December 11, 1979 and became effective on March 21, 1980, three months after loan signing. Effectiveness was conditional on the Government's issuance of an Executive Order, satisfactory to the Bank, describing PPFK's obligations and functions under the project.

3.2 Project start-up was essentially delayed by two years due to the Government's serious financial constraints in 1980 and 1981 and consequent inability to provide a budgetary allocation for the project's local costs in those years; this continued into 1982 when only 50% of the agreed budgetary allocation was provided. During this period, the Government did, however, carry out a number of preparatory activities that had little or no cost implications. These included:

- (a) appointment of staff to the Population Loan Section in MOHSA;

- (b) appointment of the Project Advisory Committee;
- (c) appointment of executive architects for the construction components and the undertaking of the design work;
- (d) site acquisition for MCH centers by provincial governments and PPFK;
- (e) design of the expanded IEC program and planning of the new production studio at PPFK;
- (f) preparation of fieldworker and nurse training curricula and the training of the first group of staff; and
- (g) administrative action to convert unipurpose health workers into multipurpose workers and improve their civil service status and employment terms.

This pragmatic approach by the Government had the positive effect that, when funds for the major activities became available in 1982, implementation moved rapidly.

3.3 The slow start to implementation was paradoxically fortuitous not only in allowing the completion of tasks such as site acquisition, design work and training curricula development, but also in providing time for the resolution of a number of issues that had not been completely addressed during project preparation. Despite the long period between an agreement to proceed with a population project (September 1976) and appraisal (April 1979), project preparation was actually carried out in a relatively short time, forcing the deferral of some issues until after loan approval. The two-year delay in implementation allowed the smooth resolution of these issues which necessitated some changes in project design (para. 3.6). The extensive "preparation" work done in the first eighteen months of the project was, in consequence, partly responsible for the subsequent efficient execution of the project. The Bank was very supportive of the proposed changes and this flexible approach went a long way towards the projects' success.

3.4 Several events occurred at project start-up that could have seriously affected implementation. A change of government in 1979 was accompanied by a concomitant change in national priorities. This was followed in 1980 by a government reorganization and consolidation under which the Bureau of MCH in MOHSA was downgraded to a Division in the Bureau of Public Health and the Korean Institute for Family Planning lost its separate identity and was merged with the Korean Health Development Institute into the new Korean Institute for Population and Health (KIPH). Normally, such changes would indicate that MCH and family planning activities would receive lower priority in both organizations, especially as the new President of KIPH came from the health rather than population area. Many observers at the time feared that the family planning program had lost its momentum and some of its priorities, and pointed to an actual decline in program acceptors in 1980 and 1981, something that had not occurred before or since.

3.5 Fortunately, these events did not affect the continued success of the program or implementation of the project. The Government's efficient administrative system, with its considerable delegated authority to MOHSA, as well as the technical skills and commitment of KIPH staff, contributed to the success of the program and project. The high-level Population Policy Coordination Committee, which had Cabinet-level status and functioned under the chairmanship of the Deputy Prime Minister, succeeded in getting top Government attention and approval for strategies that reactivated the program by 1982; these strategies included a range of policy and operational measures that accelerated program performance throughout the 1980s.

Revisions to the Project

3.6 The following revisions were made to the original project which had the effect of making the project more focused and achieving some cost savings. These changes were fully discussed with the Bank and agreed to during supervision. The main changes to project design were as follows:

- (a) Construction and Equipping of MCH Centers: The project was originally to provide 68 "Type A" Centers and 23 "Type B" Centers. The former are large facilities capable of serving a population of 100,000 to 150,000 persons and handling about 1,600 deliveries a year, while the latter served a population of 50,000 to 100,000 and can handle only about 600 births a year. As new demographic data became available during project implementation, the project design was simplified since it became evident that many areas could be served satisfactorily by MCH/FP centers with a smaller number of beds than anticipated at appraisal. The project therefore provided 29 Type A Centers and 60 Type B Centers as well as one urban center for the Korean Association for Voluntary Sterilization (KAVS). Equipment and vehicles provided to the MCH centers and health centers was also less than originally expected as a result of the Project Advisory Committee's review and modification of the lists of equipment and vehicles proposed for project financing;
- (b) Day Care Centers: As part of the 1980 reorganization, the Saemaul Movement and its women's clubs were made responsible for providing day care centers, using non-project funds. The 68 day care centers originally included in the project were therefore not built. However, a total of 2,413 Saemaul nurseries provide services in urban low-income and rural areas, including the project areas; and
- (c) Training Facilities and Programs: With the merger of KIFP to form the KIPH, the role of the Institute became more research than operations oriented. The training proposed for health staff, miscellaneous workers and community representatives was therefore reviewed, and the number of health workers to be trained under the project was cut back from 8,000 to 4,000 while training of miscellaneous workers and FP awareness seminars for community leaders were eliminated. Responsibility for health training was reassigned to the National Institute of Health (NIH), with other training left to PPFK and the Saemaul Movement. This reallocation of tasks

resulted in the cancellation of the KIFP Training Center and dormitory from the project, but turned out to be advantageous in that NIH was able to decentralize training to existing regional facilities, thereby addressing the training needs of the project very effectively at a much lower cost than had been anticipated.

3.7 Addition of a Comprehensive Maternal and Child Health Center Component. By mid-1982, it became apparent that there would be considerable savings under the loan due to the reduction in project construction, a major devaluation of the won, and lower than expected construction costs caused by keen competition between construction companies at a time of general recession in Korea. The Government proposed that the undisbursed balance of loan funds be used to expand project activities, and MOHSA initially suggested the construction of health centers and subcenters. This was not approved by EPB, and MOHSA subsequently offered an innovative proposal to complement the original project by financing the construction, equipping and furnishing of about seven higher-level medical facilities that would serve as regional referral centers for the more complicated obstetric, pediatric and family planning cases that could not readily be handled by the MCH/FP centers already built with project funds. The regional centers would also help train family planning workers and other staff needed by the primary clinics and provide specialist advice to the staff of those clinics. The secondary-level comprehensive MCH centers were to be attached to private non-profit hospitals since the majority of hospitals in Korea (85% at this time) were operated by the private sector. The incorporation of private hospitals within the proposed amended project was expected to significantly strengthen the Government's MCH/FP program by bringing it into the mainstream of health care.

3.8 The construction of comprehensive MCH centers (CMCHCs) was expected to be the first phase of a broader government-sponsored program in which the entire nation would be served by 13 such comprehensive secondary-level facilities. Since the secondary-level MCH/FP program was still in a formative stage, the Government proposed that one of the participating hospitals should assume a lead role in the overall system of MCH/FP care. The lead hospital selected, a national MCH/FP center established in 1984 with assistance from Japan, would provide a base for operational and clinical research. It would define, develop and disseminate materials on standard MCH/FP procedures, including training packages for the staff of participating hospitals. It would also develop an appropriate management information system and undertake much of the preparatory work needed for further development of the MCH/FP program. In effect, the lead hospital was to constitute the logical apex of a pyramidal MCH/FP care structure.

3.9 After almost a year of planning and informal discussions, the detailed proposal was submitted to the Bank in March 1985 and accepted shortly thereafter, since it tied in well with the project objectives and would enhance the operational effectiveness of the primary clinics already constructed by providing higher-level support. The Government's proposal was appraised by the Bank in August 1985 and approved by the Board in March 1986. The Loan Agreement was amended in April 1986 to provide funds for:

- (a) construction, furnishing and equipping of about 7 comprehensive MCH

centers to be attached to already established hospitals strategically located in regional centers throughout the country, providing each center with 23 to 120 additional hospital beds;

- (b) accommodation, furniture and equipment, including computer equipment and personnel, for the lead hospital so that it could fulfill its role of tertiary-level center; and
- (c) the development of linkages between public and private sector health facilities, through the provision of in-service training, technical assistance to primary MCH/FP centers, management information systems, and research and development support.

The organizational arrangements for the CMCHC component were the same as those for the original project. A CMCHC Coordination Committee established for coordination of the CMCHC program was headed by the Project Director and included representatives of the participating hospitals. Bank loan funds were on-lent to the participating private hospitals on the same terms and conditions as the Bank loan, and the hospitals bore the foreign exchange risk of the subloans.

3.10 The modification of the project was an appropriate response to the country's rapidly changing health needs. As originally designed, the project conformed with the Bank's 1978 health policy focus on primary health care; this approach was consistent with international strategies and the Government's own approach at that time. The project was therefore intended to strengthen rural health care, including MCH care, and to leave behind a network of institutions at the local level. However, even as the project was being developed, changes were occurring in the country's health care needs and institutional roles: the public sector provision of basic primary care and implementation of preventive measures were giving way to the provision of sophisticated primary and secondary care, primarily by the private sector. The progressive expansion of health insurance provided the financial mechanism which allowed increased access to better care for much of the population. This broad view was also possible as national health planning had begun to develop an overall nationwide health care system that would establish geographic service catchment areas and link public and private sector services at all three levels of health care. The trend toward the integration of all levels of service accelerated as health insurance progressively became available to the population. The Bank in the reprogrammed CMCHC component assisted the Government's plan to provide better and more sophisticated care to mothers and children. The CMCHC component also recognized the technical leadership that secondary and tertiary health care facilities (which are practically all in the private sector) can play in support of the Government's primary care system.

Progress of Implementation

3.11 Construction. The performance of the borrower in implementing project civil works was outstanding. Although project start-up was delayed by two years due to fiscal constraints, the Government subsequently made up for the initial funding shortfall. Project activities were substantially completed by mid-1985, essentially in three and one half years elapsed time rather than the four years originally planned. Implementation involved operations in over

90 counties and 11 urban centers around the country, but despite the geographical dispersion, works were carried out satisfactorily. Annex 1 shows the progress of project construction while Annex 2 lists the facilities completed.

3.12 Actual accomplishments under the project included: 89 of the 91 planned MCH centers as well as one facility for KAVS, all 11 PPFK MCH/FP centers, the PPFK video production studio, and 11 CMCH centers, which surpassed the seven or eight centers envisioned at the time of project reprogramming. The 29 Type A MCH centers each have an area of 1,000 sq m and 16 maternity beds, with a full-time doctor, 14 nursing or midwifery staff and five support staff. The 60 Type B centers each have an area of 800 sq m and six maternity beds, with seven nursing and midwifery staff and four support staff. The centers provide the full range of mother and child services, including deliveries. The 11 PPFK centers each have an area of 1,100 sq m, 12 maternity beds and a staff of one doctor, five nursing and midwifery staff and five support staff.

3.13 Implementation of the CMCHC component was exceptional. The Bank approved the component in March 1986, and construction was substantially completed at loan closing on December 31, 1987. All of the 11 centers were operational by the first half of 1988. The accelerated pace of implementation was due to the project implementation experience in MOHSA and the efficiency of the private hospitals' management. Bank staff adopted modified review and approval procedures based on earlier project experience that also helped implementation.

3.14 Training. The project originally included a very extensive training program for about 8,000 family planning fieldworkers and various other personnel involved in family planning, as well as awareness seminars aimed at personnel from other agencies. During project implementation, it was decided that this program was overly ambitious and somewhat unrealistic. The program was therefore redesigned to achieve its goals but through a more focussed technical training program with less attention to miscellaneous worker training and awareness seminars. This decision was fully justified.

3.15 Training was therefore provided under the project to 3,877 existing health workers, essentially meeting the target of training 4,000 current employees (Annex 3). However, the recruitment of an additional 4,000 fieldworkers was found to be no longer necessary. The staff trained under the project comprised nurse supervisors and nurse-aids who were unipurpose workers providing categorical services in MCH, FP or tuberculosis. Technical and supervisory training was provided to the nurse supervisors who were appointed to the health centers to oversee the work of the multipurpose workers and provide them with needed technical guidance. The nurse-aids benefitted from a four-month training program of theoretical and practical training combined with annual refresher courses aimed at making them competent in all three public health areas and enabling them to function as multipurpose workers. The training was linked to institutional reform, giving the workers civil service status and improved pay and terms of service to reduce the high staff turnover.

3.16 Refresher training in short 3-day courses was also initiated in 1987 when some 320 health staff took the course. About 880 staff were trained in 1988 and the program is to be continued. A special program to train midwives was also

initiated, and some 81 persons have been trained.

3.17 IEC Activities. This component, implemented by PPFK within the framework of an overall strategy agreed to by MOHSA, was unusual in its implementation by an NGO. Although a major IEC role was originally proposed for MOHSA, the Government preferred to involve PPFK for this purpose due to PPFK's greater skills in this area. The equipment provided to the 203 health centers and to MCH centers and hospitals was well used for demonstrations and education. The PPFK production studio produced some 31 videos and slide presentations during 1984-87, which were copied and distributed. The reactivated mobile IEC vans formed the basic support for field campaigns.

3.18 Research and Evaluation. The project financed three studies: (a) design and implementation of a reporting system for MCH/FP center activities, (b) assessment of the operations of the MCH centers, and (c) evaluation of the multipurpose worker training program.

3.19 The reporting system was designed and introduced in 1982 when the first 14 MCH centers became operational. An adaptation of the same system is also being used by the PPFK clinics.

3.20 An initial evaluation of the 49 MCH centers offering services in 1983 was carried out in that year by KIPH, with particular reference to management matters. This evaluation reviewed aspects such as staffing, hours of service, operating budgets, community acceptance, availability of drugs and vaccines, and the nature of competing services. The findings presented an uneven picture and indicated that the clinics would take several years to reach their maximum potential. The findings highlighted the difficulties of involving more than one primary implementing agency, in this case the Ministry of Home Affairs which is involved in clinic operations since it is responsible for all provincial matters including budget and staffing. Staff recruitment and retention was also identified as a problem, especially for round-the-clock delivery services which were very difficult to staff. Other operational difficulties identified were inadequate budget provision, physician availability and divided management controls and work relationships.

3.21 A final study of MCH center operations was carried out by KIPH at completion of project works. This study showed that operations had significantly improved but were still below the original design potential. The MCH centers were more fully utilized and staffing levels were about 80% of approved strength. By 1987, the average budget provision for both Type A and Type B MCH centers was 80% of the proposed budget plan for their centers. Compared to 1986, delivery of services at these clinics in 1987 was growing by about 11% for deliveries, 40% for post-natal care and 46% in infant care. More than 75% of MCH center staff participate in non-center activities to support health and population development in the community. This support included working with the Saemaul movement and participating in other community programs for the provision of health and family planning education.

3.22 The third study centered on the 1988 multipurpose health workers training program and on the workers' subsequent performance. This course was designed to augment the workers' practical work experience by providing technical

knowledge and improving work skills. Most of the workers found the training adequate in child care, family planning and public health control, but still inadequate in obstetrical care. Only some 30% of the health workers worked under the direct supervision of nurses while the remainder worked in township offices under lay supervisors, guidance and quality control supervision. An appropriate arrangement to provide these workers with technical supervision still needs to be developed.

3.23 In addition, clinical research and community health studies were carried out under the CMCHC component. These studies were completed in 1988 and published in a Korean university journal. The clinical component indicated the need to establish national policies on screening for metabolic and chromosomal abnormalities in mothers and children. The community health studies provided a scheme for an MIS system and a training module; they also assessed the implications of social and behavioral factors in the use of MCH services. The studies carried out under the project were confined to those that the Government and the Bank considered as critical to project objectives.

3.24 Conclusion. The original project timetable was realistic and would have been met had the Government's fiscal constraints not occurred. The Government and the Bank recognized that the 21-month implementation schedule for the CMCHC component was extremely ambitious, but their mutual commitment to meet the closing date of December 31, 1987 resulted in special efforts to complete this component.

Project Costs and Financing

3.25 The project as implemented cost US\$68.2 million, considerably less than the appraisal estimate of US\$91.5 million despite the inclusion of a substantial additional component that broadened the project scope. The Bank loan provided US\$30 million which represented the final total foreign exchange cost of the project and 39% of the total project cost. The cost of the original project as implemented was US\$31.8 million or 35% of the appraisal estimate; the Bank loan financed US\$12.5 million of this cost. The savings of US\$17.5 million from the Bank loan were reprogrammed for the construction and equipping of CMCH centers. The latter component had an actual cost of US\$31.3 million, slightly more than the US\$30.7 million estimated at appraisal.

3.26 Project costs were much less than expected due to the combined effects of the following factors:

- (a) devaluation of the Korean won from an exchange rate of W 485 to the U.S. dollar at appraisal to W 840 to the dollar in March 1985. The devaluation brought about savings of US\$9 million under the Bank loan;
- (b) reduction in the number and size of physical facilities constructed under the project, which resulted in US\$3.1 million of savings under the loan; and
- (c) lack of need for project contingencies and the payment of certain local costs from the government budget, rather than the project.

The cost of constructing the MCH Centers was very close to appraisal estimates in local currency while training costs and study expenses were met from the Government budget. As a result, savings under the loan totaled US\$5.4 million.

Detailed project costs of the original project and the CMCHC component are given in Annex 4.

Disbursement

3.27 Disbursement of the Bank loan by year and by category is shown in Annex 5. Due to the initial implementation delay, loan closing was extended from the original date of June 30, 1984 to June 30, 1985, then to December 31, 1985. Following reprogramming of the project for the CMCHC component, the closing date was set at December 31, 1987, and the loan closed on that date, although disbursement was allowed to continue into 1988.

Procurement

3.28 Project procurement was fully satisfactory and at all times problem-free. There were no major issues either with the borrower or with bidders. MOHSA was responsible for procurement through the active involvement of the Office of Supply, Republic of Korea (OSROK). International bidding procedures were followed for the procurement of most items including construction; however with a strong domestic building industry and considerable local manufacturing of equipment and furniture, all construction contracts and significant amounts of equipment contracts were won by local contractors. Contracts for sophisticated medical equipment and electronic and film production equipment went generally to foreign suppliers.

3.29 The minor issues that arose in the course of procurement were process-related and consisted of:

- (a) ensuring that contracts were awarded to the lowest evaluated bidder rather than the bidder offering the "average bidding price," as was the local practice for construction contracts. MOHSA had concerns that the lowest price approach might affect quality and result in implementation problems; it cited five cases where bids seemed unrealistically low at between 53% and 59% of the appraisal estimate;
- (b) ensuring that bid evaluation considered such factors as maintenance of service facilities and availability of spare parts for the purchase of 90 ambulances for MCH centers as well as X-ray and other sophisticated medical equipment for the CMCHCs; and
- (c) ensuring that up-to-date equipment was acquired. Some early bids for medical equipment offering the lowest price were for outdated items, but this problem was rapidly corrected.

Compliance with Loan Covenants

3.30 Compliance with conditions specified in the Loan Agreement was full

and complete, with covenants met as required and on time. There were, however, a number of non-substantive changes to loan conditions that were fully justified by a re-examination of local circumstances. The extensive amount of detail and precision originally considered necessary in some of the covenants were overtaken by changed conditions in the country, and appropriate revisions were therefore made. These changes improved project implementation and had no negative impact on project scope or outcome. Details of compliance with the loan covenants are given in Annex 6.

Reporting

3.31 From the start of the project, a systematic reporting procedure was agreed with the borrower and worked well during the life of the project. The six-monthly supervision missions received the following reports: (a) construction and operations of MCH centers (by project unit in MOHSA); (b) PPFK center construction, center operations and IEC activities (by PPFK); and (c) progress of the training components (from NIH). In addition, regular reports were received on the progress of the Family Planning Program and on MCH services from KIPH. These reports were well done and were reviewed with the Project Director for appropriate follow-up during missions.

4. PROJECT AND PROGRAM IMPACT

4.1 The project as originally designed consisted of a major expansion of the physical facilities and service capacity of the rural primary health care system. The reprogramming to include CMCH centers expanded secondary level care in 11 provinces. Both these sets of activities were inter-related and provided an appropriate response to the rapidly changing health and population trends in Korea in the 1980s. Both parts of the project gave considerable emphasis to improved quality of services and better integration of health and family planning operations. While it is too soon to assess the full impact of the project on health and fertility status since the project institutions are still rather new - the MCH centers did not become fully operational until two years ago and the CMCHCs became operational only in 1988, it is obvious even now that the project was successful in its overall performance and in its impact on the health and population sectors. As shown in Annex 7, the project's objectives (para. 2.6) were largely achieved in terms of reducing the infant and maternal mortality rates, and providing services through the new facilities. The family planning targets in terms of the birth rate and the number of contraceptive users have been surpassed, and partly as a result of the project Korea achieved replacement fertility in 1984, more than eight years earlier than originally predicted.

Project Impact

4.2 The completion of the MCH and PPFK centers resulted in substantial expansion of MCH services in Korea. As indicated in Annex 8, by 1987 all 89 government MCH centers were operational, permitting a significant increase in service in 1987 compared to 1986, including a 19% increase in prenatal care provided, 11% for birth assistance, 40% for postnatal care and 46% for infant care. At PPFK clinics, which focus solely on family planning, the increase between 1985 and 1987 was remarkable - a 304% increase for prenatal care, 739% for postnatal care and 121% for infant care (Annex 8). The PPFK family planning

service also showed improvement on its already high level of acceptance. The level of acceptance at MCH centers has been less than predicted at appraisal, in part because it was impossible to predict or assess the significant shift to private sector medical care then under way as a result of increased availability of health insurance. Nor was it possible to predict the rapidity of the pace of population shifts from rural to urban areas.

4.3 Birth assistance in 1987 averaged 590 per clinic for PPFK clinics and 226 per clinic for government MCH centers. These numbers are substantially lower than the appraisal projections of 1,200 deliveries for PPFK centers, 1,600 deliveries for Type A centers and 600 deliveries for Type B centers. The clinics, however, are now beginning their third year of operation and further growth can be expected. The use of the MCH centers for preventive services shows substantial growth. An earlier problem of physician staffing for Type A MCH centers was resolved in part by assigning to them doctors already doing national service. The quality of the services at these centers has improved with assignment of the newly trained staff. The four formats developed for the "at risk approach" (infant/delivery/premature/post-natal) has been applied at MCH clinics since 1984. Overall clinic staffing levels were 928 persons in position, compared to the approved strength of 996.

4.4 Training carried out under the project resulted in improved quality of field staff and consequently improved service. The conversion of the unipurpose field workers to multipurpose workers and their absorption into the civil service reduced the annual turnover rate from around 30% to 5%.

4.5 The IEC activities supported by the project were effective and contributed to increased service demand. Annex 9 gives details of PPFK's IEC accomplishments as well as the various services provided by the mobile units. At the conclusion of the project, PPFK had established a solid program and the capacity to manage IEC in a rapidly changing environment. The IEC program has been recognized as a model, and the United Nations Population Fund has since 1987 supported training of overseas participants at the following PPFK and KIPH workshops: program management, community participation and IEC operations and materials production (Annex 10).

4.6 The research and evaluation studies carried out under the project were selected to provide a sound basis for monitoring MCH and IEC operations during the implementation phase and at project completion. In general, study results show significant improvement in MCH service use over the project life. The studies have also indicated inadequacies in project implementation in such areas as improving the effectiveness of multipurpose workers and expanding the services at MCH centers. A data system supported by the project provided the basis for operational monitoring of services. The research done under the CMCHC component provided valuable clinical and community health results that can be used to improve MCH services.

4.7 The construction of 11 CMCH Centers under the project (out of a total of 13 required nationwide) represented a major realignment of health care in Korea, introducing the concept of secondary CMCHCs' providing technical control and guidance of MCH centers within their catchment area and serving as the principal referral hospitals for the MCH centers. The public sector did not have such facilities and this component introduced a collaborative public

sector/private sector relationship. The CMCHCs were not operational until 1988 but the hospitals began providing support services in 1987 in their existing facilities. The 11 CMCHCs have consequently already trained some 600 personnel and handled 876 referrals. The details of the referrals are given in Annex 8.

Policy Changes

4.8 The project heightened awareness of the need for adequate MCH services and helped sensitize the Government to the importance of ensuring that the population had access to such services. Although a Maternal and Child Health Law had been introduced in 1973 to establish better MCH services, its implementation had been delayed by lack of funds, and only eight MCH centers existed nationwide prior to this project. The project's focus on improving MCH care reinforced the need for a sound MCH Law and caused the Government to review the 1973 law, concluding that the MCH situation had changed significantly in the past decade and that new and more effective legislation was needed. The increased concern for mother and child arose in view of a rapid decline in fertility, smaller family size, rise in the marriage age and the resultant higher risk of complications. The MCH Law was amended by the National Assembly in 1986 to provide for central and local government support of MCH care, for pregnancy registration and subsidized or free MCH care. This care would include regular medical check-ups, immunization and, as needed, hospital back-up care. A National MCH Handbook was also designed together with an accompanying family health record book to track and monitor health progress of mothers and children.

National Family Planning Program

4.9 The Korean Family Planning Program is the first one in any country, with the exception of the City-States, that has achieved demographic transition since organized family planning programs were started three decades ago. In 25 years, Korea has reduced its total fertility level from 6.1 in 1960 to 2.1 in 1985, causing the rate of population growth to drop from 2.8% in 1960 to 1.25% in 1985 (Annex 11). It is projected that at the current level of program performance, Korea will reach a population growth rate of 1% by 1993. The birth rate has also declined from 43.0 in 1960 to 19.7 in 1985: during the same period the death rate declined from 28.4 per thousand to 12.5 per thousand population. The present population of 41.5 million (1986) is expected to stabilize at 52 million by 2023. Details of program performance during 1962-87 are given in Annex 12.

4.10 Korea's demographic transition to below-replacement fertility in 25 years is a unique achievement for a country. The factors that led to this success included systematic monitoring of program performance, analysis of program trends (such as acceptor profile and contraceptive mix), implementation of sophisticated information and education programs and the introduction of a range of appropriate social policies.

4.11 Project activities and the related dialogue with Government contributed to the success of the family planning program by providing the base for expansion of key program activities and contributing to their positive outcomes. The project provided the Bank with an opportunity to work with

national institutions dedicated to achieving program goals and to use new and innovative policies and operational strategies to influence demographic change.

Progress of Health Status

4.12 Korea's health profile has undergone significant changes in the past three decades. The country has made the epidemiological transition from the classic low-income country health situation to that of the more economically advanced countries. The change is reflected in the current low birth and death rates as well as in today's low infant mortality rate. (The infant mortality rate stated in official reports is 30 per thousand live births but surveys and other observations indicate it may be as low as 18 per thousand.) As the Korean health profile has changed, the health needs of the population have also changed. A rapid shift is taking place from dependence on public health measures and basic primary health care to more sophisticated primary and secondary health care, including greater use of curative care and physician services. Health insurance introduced in 1976 will become universal by 1989 and greatly increase access to health care.

5. INSTITUTIONAL PERFORMANCE

Borrower's Performance

5.1 MOHSA's performance, measured against its sustained commitment to the project, to the long-term sector goals and to effective project implementation, was excellent. Although there was an unavoidable two-year start-up delay, MOHSA was at all times concerned about the delay and was pragmatic in developing solutions to cope with the situation. The Ministry's officials were prudent in project management, and this quality enabled all the agreed project activities to be completed with substantial economies. MOHSA officials and officials at EPB were sensitive to the rapid changes in the health and population profile in the country and to the need to adapt their strategies to meet these changes. The addition of the CMCHC component is one indication of this concern. All changes and modifications to the original design were carefully considered, technically evaluated and well presented for Bank consideration. A project implementation reporting system was developed fairly early in the project and contributed to good project monitoring.

5.2 Although this was the first Bank operation in Korea's population, health and nutrition sector, the implementation capacity of the borrower was fully adequate. The executing agency (MOHSA) as well as the four principal participating groups (PPFK, KIPH, NIH and the hospitals) mastered the necessary procedures and approaches and carried out the project consistent with the Loan Agreement and related Bank procedures. Historical experience in this sector in other countries has shown a much slower learning curve.

5.3 The project was well managed by MOHSA, using national staff, consultants and contractors. A significant feature of this project was the very limited use of external consultants for management support. Such assistance was used only for new areas such as defining the "at risk" approach to MCH care and the innovative IEC techniques and technology. The project management team in MOHSA, the Population Loan Section, was an effective and well operated entity,

which managed and coordinated all operations under the overall supervision of the Director of the Family Health Division. The principal participating agencies also collaborated well. Although some inter-agency tensions did occur during the project period, these were at a very low level and were submerged in the greater task of carrying out the project activities. Staff involved in project implementation grew considerably in skill and technical stature over the life of the project.

5.4 The institutional stability of the participating institutions and the continuity of key project staff were other important factors in successful implementation.

Bank Performance

5.5 In general, the Bank's multisectoral population and health projects have required a great deal of supervision effort, well above the Bank average. This was not so, however, in the case of this project which required only 80 staff-weeks of supervision between 1980 and 1987, i.e., 10 weeks per year. Bank supervision teams consisted of four members in the first two years of project implementation, declining to three members in the third year and to two members for the rest of the project's life. Supervision was done, on average, twice a year and most missions were of two weeks duration. The significant reduction of supervision needs was allowed by continuity in the composition of the two person supervision teams. The progressive growth of the borrower's implementation capacity made supervision essentially a trouble-free operation. At the same time, during the process of supervision, considerable sector and program dialogue took place and enabled innovative actions to be developed and implemented. These actions included development of an effective project implementation reporting system and consultations which went beyond family planning strategies to consider CMCHC development and future directions in health financing.

5.6 There was initial criticism within the Bank that the expansion of the project to include the CMCHC component would move away from the Bank's primary health care policy. It was also suggested in the Bank that the component would change the thrust and focus of the project. It can now be said that by providing 11 of the 13 CMCHCs required nationwide and assisting in the establishment of a new working relationship between the public and private health care sectors, a good start has been made in coping with new trends and institutional changes in the Korean health care sector.

The Government/Bank Working Relationship

5.7 During project preparation, the relationship of the Government and the Bank was sometimes complicated as perceptions and expectations of what the project could do and how it should be packaged caused considerable debate and delay. Preparation moved more satisfactorily after 1978 with the appointment of both a new Bank task manager for the project and a new Director General of MCH in MOHSA. From this stage to project completion, there was remarkable continuity in the Bank staff involved, and over the next ten years the project had only two task managers. In MOHSA, the project executive director changed four times, but there was overall continuity in support of the project by

professional staff.

5.8 The working relationship between the Bank and the borrower remained fully satisfactory at all times throughout the life of the project. Difficulties did arise, but they were always resolved effectively, to the mutual satisfaction of both parties. There was a good level of trust and confidence between the Government and the Bank, which is best summarized in the Government's PCR which states, "The IBRD Mission made great efforts to facilitate the implementation of the project through mutual cooperation with the Ministry of Finance, with EPB and with MOHSA. The visits made a great contribution to better understanding between the IBRD and the Republic of Korea."

6. CONCLUSIONS AND LESSONS LEARNED

Conclusion

6.1 The Population Project was developed in the late 1970s when Korea was experiencing rapid population growth and the health of its population, particularly in the rural areas, required further improvement. The project addressed both of these concerns, quite appropriately. Korea's family planning program had reached a plateau in its acceptance rate, and new approaches were needed to gain increased participation. The structure and scope of the Population Project assisted the Government to shift its population strategy and reinforce the effectiveness of the family planning program by: (a) reducing infant mortality so that mothers would be encouraged to accept a small-family norm; (b) improving service quality so that clients would continue to practice contraception; (c) providing sophisticated IEC messages to influence specific target groups; and (d) integrating basic health care at the service level.

6.2 The identification, preparation and appraisal of the project were therefore innovative and consistent with emerging sector knowledge and developing strategies for second-stage family planning programs. The decision to carry out a major expansion of health facilities to provide better access to services for the rural population and for greater equity was appropriate. The adoption of the principle that improved maternal health and infant welfare would enhance fertility decline and strengthen contraceptive practice was a relatively new idea at the time, but proved to be correct in the light of subsequent project experience.

6.3 While the project's basic approach continued to be valid throughout the implementation period, certain aspects of project design became inappropriate as a result of major social, economic and political changes that occurred during project implementation and altered the sectoral situation. Rapid urbanization (70% of Korea's population now live in urban areas) reduced the earlier need to focus on expanding rural health services, as did trends toward improved communications with urban centers, rapidly rising incomes, and the access afforded by universal health insurance to sophisticated health care in urban areas.

6.4 The project adapted successfully to these changes. The significant savings realized under the loan were used to establish a three-tiered regional health care network to meet the present and future needs expected to arise from

universal health insurance. A more traditional approach to cancel the project savings would have denied the Government the opportunity to begin rationalizing its MCH delivery system in this way and to develop new working arrangements between the public and private health sectors.

6.5 The project's organizational arrangements worked very satisfactorily during the eight-year project period. The success of these arrangements can be attributed to two major factors. First, the project was implemented by experienced national institutions with proven track records; second, the institutional arrangements fitted well into the Korean management and cultural environment.

6.6 The decision to finance the project was fully justified as the project not only met its population and health status objectives but also provided the Bank with an opportunity to learn from and collaborate on a program at the forefront of the population and health sector. The strategies and activities developed in Korea have significance for other programs in the Region that are reaching the same phase in their national family planning programs. The project was also valuable in involving the Bank in an extensive sector dialogue, not only on population issues but also on the emerging government concern for health care financing in a period of health transition. A Bank sector report on health system financing has since been prepared and submitted to the Government, and the policies based, in part, on this report are now being introduced to handle the population's rising demand for health services.

6.7 Overall, four factors played a major role in the project's success. First, there was a strong national commitment to achieving the Government's development objectives, including its goals for the population sector. The second factor was the country's efficient and fully accountable civil service which worked to realize the national population goals. The third factor was the healthy Government-NGO relationship in the population sector. And the fourth was the successful inclusion of the private health sector in important project activities through on-lending of project funds. As has been seen in Singapore and Thailand, success in the population sector moved in parallel with success in development.

Lessons Learned

6.8 The most important lesson learned as a result of the project is that changes in the population sector can occur rapidly and call for flexibility in the implementation of population programs and projects. When the time between project conception and loan closing is a decade or more, original project assumptions may become outdated mid-way in the life of the project, necessitating changes in the project design. In the case of this project, both the Government and the Bank eventually showed flexibility in their approaches to the project and time has shown the wisdom of the decision to reprogram the project through the addition of a major component.

6.9 Other lessons learned under the project include:

- (a) the importance of reaching agreement with the borrower on project strategy and content as soon as possible once the decision to

implement a project is made. The failure to reach such agreement delayed preparation of the Population Project;

- (b) the need to avoid overdesign and excessive detail in project preparation. The components of the project which were dropped after reconsideration during the first project year need not have been included at all; they were desirable but not critical;
- (c) project decisions should be made rapidly. Internal bureaucratic considerations, first within the Government and later in the Bank, delayed concurrence to the addition of the CMCHC component for almost two years. The project could have closed a year earlier had the institutional debate not taken place and the Bank responded to the Government's proposal without undue delay; and
- (d) the inclusion of NGOs and the private health sector in the project was well-founded, since it permitted not only significant expansion of service availability beyond the government health sector but also the testing of new methods of expanding and upgrading services.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Progress of Project Construction Components

Construction of:	Project Plan	Actual					Total	
		1981	1982	1983	1984	1985		1986
Gov't MCH Centers	91	14	28	29	18		89	
PPFK MCH/FP Centers	11		4		7		11	
PPFK Studio	1				1		1	
KAVS Center	0				1		1	
Daycare Centers	68						Dropped	
KIFP Training Facility	1						Dropped	
CMCH Centers	About 7						11	11

Note: Year refers to start of construction. Components were completed within 12 months of starting date.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

List of Facilities Constructed Under the Project

A. Government MCH Centers

City Province	Kun	Type	City Province	Kun	Type
Kyeonggi	Kwangju	B	Choongbuk	Boeun	B
	Kapeong	B		Kaesan	B
	Yangpeong	B		Jungwon	A
	Kimpo	B		Eumsung	B
	Kangwha	B		Cheongwon	A
	Ahnsung	A		Ockcheon	B
	Whasung	A		Yeongdong	B
	Koyang	A		Danyang	B
	Pochun	B		Jewon	B
	Yeonchun	B			
	Yongin	A			
Kangwon	Cheolwon	B	Choungnam	Yasan	B
	Whachun	B		Seochun	B
	Yangku	B		Dangjin	A
	Jungsun	B		Seosan	A
	Yangyang	B		Chunwon	B
	Kosung	B		Kumsan	B
	Inje	B		Taejeon	A
	Peongchang	B		Chunan	B
	Yeongweol	B	Cheonbuk	Ockgu	B
	Wonsung	B		Yimsil	B
	Taeback	B		Kochang	A
	Chunsung	A		Buan	A
	Haengsung	B		Jinan	B
	Wonju	A		Wanju	A
				Weolsung	A
Cheonnam	Jindo	B		Iksan	A
	Koksung	B		Muju	B
	Koheong	A		Jangsu	B
	Wando	A			
	Whasoon	A			
	Kumsung	A			
	Yeongam	B			
	Muan	B			
	Jangheong	B			
	Kurae	B			
	Mokpo	A			
	Haenam	A			
	Kwangyang	B			

-25-

City Province	Kun	Type	City Province	Kun	Type
Kyeongbuk	Cheongsong	B	Kyeongnam	Tongyeong	B
	Yeongyang	B		Yangsan	A
	Yeongpung	B		Keoje	A
	Bongwaha	B		Euichang	B
	Sangju	B		Sachun	B
	Koryeong	B		Haman	B
	Chilkok	B		Sancheong	B
	Sunsan	B			
	Wooljin	B	Cheju	Bukcheju	A
	Sangju	A		Namcheju	B
	Yeongduch	B			
	Euisung	B			

B. PPFK MCH/FP Clinics

City/Province
1. Seoul
2. Busan
3. Incheon
4. Kyeonggi
5. Kangwon
6. Chungbuk
7. Chungnam
8. Cheonbuk
9. Cheonnam
10. Kyeongbuk
11. Kyeongnam

C. CMCH Centers

Hospital	No. of Beds	Area (m ²)
1. Chunchen		
Sungshim	150	9,629
2. Taejeon		
Eulji	84	4,074
3. Chunan		
Soonchunhyang	80	4,332
4. Jeonju		
Jesus	68	2,326
5. Kwangju		
Christian	58	3,110
6. Andong		
Sungso	80	1,050
7. Gumi	Recon-	
Soonchunhyang	struction	-
8. Busan		
Ilshin	120	7,451
9. Wonju		
Christian	100	6,820
10. Cheongju		
Rheera	150	9,907
11. Seoul		
Korea MCH Center Equip-		-
ment		
Research		

D. KAVS Center

KOREA

FIRST POPULATION PROJECT (LOAN 1774-S KO)

PROJECT COMPLETION REPORT

Target vs Accomplishment in Annual Number of
Trainees of Multipurpose Health Worker Training

Year	<u>Total</u>		<u>1981</u>		<u>1982</u>		<u>1983</u>		<u>1984</u>		<u>1985</u>	
	Plan	Perfor- mance	Plan	Perfor- mance	Plan	Perfor- mance	Plan	Perfor- mance	Plan	Perfor- mance	Plan	Perfor- mance
<u>Total</u>	<u>4,000</u>	<u>3,877</u>	<u>400</u>	<u>393</u>	<u>1,000</u>	<u>973</u>	<u>1,000</u>	<u>971</u>	<u>1,000</u>	<u>964</u>	<u>800</u>	<u>576</u>
Nurse	520	449	40	37	120	113	120	96	120	92	120	111
Nurse-aid	3,480	3,428	360	356	880	860	880	875	880	872	480	465

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

ORIGINAL PROJECT

Actual Cost vs Appraisal Estimate by Category
(Unit: million won)^{1/}

Category	<u>Appraisal Estimate</u>			<u>Actual Cost</u>		
	Total	Local	Foreign	Total	Local	Foreign
Total	44,404 (91,554)	29,854 (61,554)	14,550 (30,000)	25,615 (931,793)	15,678 (19,462)	9,937 (12,331)
Civil works	24,927 (51,396)	17,366 (35,806)	7,561 (15,590)	20,476 (25,416)	14,251 (17,691)	6,225 (7,725)
Medical equipment	4,418 (9,108.9)	662 (1,364.8)	3,756 (7,744.1)	4,163 (5,166)	588 (730)	3,575 (4,436)
Furniture	1,118 (2,305.1)	635 (1,309.2)	483 (995.9)	464 (576)	327 (406)	137 (170)
Management	3,060 (6,309)	3,060 (6,309)	-	512 (635)	512 (635)	--
Overseas training	33 (68)	-	33 (68)	-	-	-
Contingency	10,848 (22,367)	8,131 (16,765)	2,717 (5,602)	-	-	-

^{1/} US\$ thousands shown in parentheses.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

ORIGINAL PROJECT

Actual Cost vs Appraisal Estimate by Program

(Unit: million won)^{2/}

Category	Appraisal Estimate			Actual Cost		
	Total	Local	Foreign	Total	Local	Foreign
Total	44,404 (91,554)	29,854 (61,554)	14,550 (30,000)	25,615 (31,793)	15,678 (19,462)	9,937 (12,331)
MCH Center	35,114 (72,400)	22,714 (46,832)	12,400 (25,568)	12,074 (26,151)	12,959 (16,081)	8,115 (10,070)
Multipurpose Health Worker Training	1,723 (3,553)	1,650 (3,402)	73 (151)	512 (641)	512 (641)	-
Research and Evaluation	389 (802)	389 (802)	-	-	-	-
Administrative Management	318 (656)	301 (621)	17 (35)	-	-	-
PPFK Clinic	4,185 (8,628)	2,887 (5,953)	1,298 (2,675)	3,322 (4,123)	2,086 (2,589)	1,236 (1,534)
PPFK Studio	687 (1,417)	561 (1,158)	126 (260)	422 (525)	121 (151)	301 (374)
PPFK IE & C Mobile Vans	402 (3,270)	119 (2,543)	283 (727)	285	-	285

^{2/} US\$ thousands shown in parentheses.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

CMCHC COMPONENT

Actual Costs vs Appraisal Estimate by Category

Category	Appraisal Estimate (US\$: 900 Won)			Actual Costs (US\$: 840 Won)			Balance (%)
	Total	Local	Foreign	Total	Local	Foreign	
Total	31,314 (34,793)	15,412 (17,124)	15,902 (17,669)	30,689 (36,546)	15,963 (18,877)	14,726 (17,669)	-2.0 (+5.0)
Civil Work	22,068 (24,517)	13,481 (14,979)	8,587 (,538)	22,107 (26,056)	14,131 (16,625)	7,976 (9,431)	-0.2 (+6.3)
Furniture	128 (142)	72 (80)	56 (62)	134 (169)	76 (97)	58 (72)	+4.5 (-19.0)
Medical equipment	8,229 (9,146)	1,859 (2,065)	6,370 (7,081)	7,605 (9,333)	1,756 (2,155)	5,849 (7,178)	-7.6 (+2.1)
Research	889 (988)	-	889 (988)	843 (988)	-	843 (988)	-5.2 (0)

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

CMCHC COMPONENT

Actual Costs vs Appraisal Estimate by Program

(Unit: million won)^{3/}

Hospital	<u>Appraisal Estimate</u>			<u>Actual Costs</u>		
	Total	Local	Foreign	Total	Local	Foreign
Total	31,314 (34,793)	15,412 (17,124)	15,902 (17,669)	30,689 (36,546)	15,963 (18,877)	14,726 (17,669)
Chunchen SUNGshim	5,068 (5,631)	2,458 (2,731)	2,610 (2,900)	4,848 (5,740)	2,400 (2,840)	2,488 (2,900)
Wonju Christian	3,138 (3,448)	1,869 (2,077)	1,269 (1,411)	3,149 (3,771)	1,954 (2,300)	1,195 (1,411)
Taejeon Eulji	2,809 (3,121)	1,369 (1,521)	1,440 (1,600)	2,723 (3,230)	1,374 (1,630)	1,349 (1,600)
Chunan Soonchun hyang	2,187 (2,430)	1,121 (1,246)	1,066 (1,184)	1,849 (2,235)	884 (1,051)	965 (1,184)
Jeonju Jesus	2,140 (2,379)	989 (1,099)	1,151 (1,280)	1,959 (2,391)	936 (1,111)	1,023 (1,280)
Kwangju Christian	2,383 (2,648)	1,028 (1,142)	1,355 (1,506)	2,458 (2,955)	1,220 (1,449)	1,238 (1,506)

^{3/} US\$ thousands shown in parentheses.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

CMCHC COMPONENT

Actual Costs vs Appraisal Estimate by Program
(Unit: million won)

Hospital	<u>Appraisal Estimate</u>			<u>Actual Costs</u>		
	Total	Local	Foreign	Total	Local	Foreign
Andong Sungso	2,498 (2,774)	1,201 (1,334)	1,297 (1,440)	2,427 (2,859)	1,199 (1,419)	1,228 (1,440)
Gumi Soonchun hyang	393 (436)	93 (103)	300 (333)	389 (473)	116 (140)	273 (333)
Busan Ilshin	4,141 (4,600)	2,176 (2,418)	1,965 (2,182)	4,097 (4,922)	2,322 (2,740)	1,775 (2,182)
Cheongju Rheera	5,668 (6,298)	3,108 (3,453)	2,560 (2,845)	5,947 (7,042)	3,558 (4,197)	2,389 (2,845)
Seoul Soonchun huang	889 (988)	-	889 (988)	843 (988)	-	843 (988)

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Disbursements
(US\$ million)

A. Estimated and Actual Disbursements

<u>Calendar Year</u>	<u>Appraisal Estimates</u>	<u>Appraisal Cumulative</u>	<u>Actual</u>	<u>Cumulative Actual</u>	<u>Actual as % of Cumulative Apr.</u>
1980	0.3	0.3	0	0	0
1981	7.9	8.2	0	0	0
1982	19.7	27.9	1.47	1.47	5.3
1983	2.1	30.0	4.15	5.62	18.7
1984			6.70	12.32	
1985			0	12.32	
1986			6.47	18.79	
1987			8.32	27.11	
1988			2.89	30.00	

Note: This table can be misleading as a measure of project implementation except for the years 1980 and 1981 when lack of budget delayed implementation. By 1984, although only US\$12.32 million was disbursed, the project activities originally planned was completed.

B. Actual Disbursement by Category

<u>Category</u>	<u>Disbursements (US\$)</u>
1. Civil Works	17,184,831.43
2. Furniture	269,525.51
3. Equipment, Vehicles and Materials	11,574,578.36
4. Overseas Training	0
5. Studies on MCH, Information System	1,000,209.46
6. <u>Total</u>	30,029,144.76

- 33 -

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Compliance with Loan Conditions

Conditions

<u>A. Condition of Effectiveness</u>	<u>Agreement</u>	<u>Actual</u>
Issue an Executive Order to PPFK acceptable to Bank, regarding PPFK's obligations and functions under the project (3.14) which shall not be changed without prior Bank approval (4.06).	March 27, 1980	March 27, 1980
<u>B. Conditions of the Loan Agreement</u>		
1. <u>Conditions met</u>		
(a) Establish a Project Advisory Committee with representatives of MOHSA, KIFP, KHDI, KDI, PPFK and universities (3.08).	March 1, 1980	January 1980
(b) Make the Director-General of the Bureau of MCH, MOHSA Project Director and Chairman of the Project Advisory Committee; and make the Director of the MCH Division of the Bureau Project Executive Director (3.10).	January 1980	January 1980
(c) Offer community health worker remuneration and service conditions mutually satisfactory to GROK and the Bank (3.06).	(Side Letter)	July 1, 1981
(d) Devise detailed quantitative indicators, satisfactory to the Bank, to measure program progress (3.04, b).	June 1, 1980	Submitted May 1982
(e) Acquire suitable sites for MCH/FP centers and PPFK clinics (3.05).	July 31, 1980	Obtained for 89 MCH Centers and 11 PPFK Clinics in accordance with construction program.

(f) Provide operating funds for MCH/FP centers, mobile units and other project facilities and activities (3.07).	When needed	Provided by central and local governments.
(g) Solicit research proposals from at least three research institutions for studies; have them evaluated by the Project Advisory Committee; and have selection approved by the Bank (3.09).	(No date set)	Evaluation of first 14 undertaken by KIPH during 1984. Second evaluation done in 1988.
(h) Establish a Joint Operational Committee at each MCH/FP center, consisting of the Director of the health center, the senior midwife, a local physician, the leader of the local Saemaul movement, and at least one community representative (3.11).	June 30, 1981	Ministry of Home Affairs Population Steering Committees to be used to avoid duplication.
(i) Submit guidelines to the bank (for comment) on the establishment and functioning of the Joint Operational Committees (3.11).	June 30, 1981	As above
(j) Ensure that the financing and operation of the project's day care centers uses the same integrated approach as the existing day care centers do (3.12).	No date set	Component dropped from project as these are part of ongoing Saemaul program.
(k) Ensure that vehicles are properly maintained, used exclusively for the project, and devise a system for monitoring the maintenance and use of the vehicles (3.13).	No date set	Complied with.
(l) Have PPFK maintain records, have accounts audited annually, and have certified audits and report of auditors sent to the Bank (4.03).	Within 6 mos. end of each fiscal year.	Complied with.
(m) Make sure that PPFK obtains insurance of project funded PPFK facilities (4.04).	No date set	Complied with.

C. Other Key Actions

- | | | |
|--|---|--|
| (a) Appoint a Construction Coordinator, IEC Officer, and Accounting Officer for project administration. | January 1983 | Four full-time consultant staff appointed and in place. |
| (b) Enter into contracts with universities and hospitals for the midwifery training program. | March 1980 | Midwife training is being undertaken at NIH and at 4 provincial locations. |
| (c) Issue instructions to provincial governments, KIFP and PPFK regarding policies, standards and procedures; construction program; designs and specifications for the MCH centers; procurement of furniture and equipment; and reporting. | June 1980 | Done with provinces where MCH centers are being constructed. |
| (d) Have the provincial governments, KIFP and PPFK appoint executive architects. | MOHSA: July 1980;
KIFP, PPFK:
August 1980 | MOHSA: done for provinces where MCH centers are being constructed. PPFK consultants also similarly appointed KIFP component cancelled. |

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Comparison of Stated Project Objectives and Actual Outcomes

Objective	1975	1981		1986	
	Actual	Planned	Actual	Planned	Actual
1. Reduction of birth rate	24.3	23.9	23.1	22.9	15.8
2. Number of contraceptive users (million)	2	3.1	3.4 (1982)	3.9 (1985)	4.7 (1985)
3. Assisted Delivery Rate (%)					
Total	40.2		69.4	100	77.2
Urban	62.5		82.5	100	86.2
Rural	18.9		46.7	100	53.7
4. Reduction in infant Mortality Rate (per 1,000 live births) 38				14	12.5
5. Reduction in Maternal Mortality Rate (per 10,000 births)	6.3		4.1	3.0	3.3

Note: Actual: 1975 - based on service data in Staff Appraisal Report
Planned: 1981 and 1986: Staff Appraisal Report
Actual: 1981 and 1986: EPB Population and Vital Statistics 1988 and KIPH Surveys 1981 and 1986

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Annual Operating Outcome of MCH Centers
(Unit: case)

Year	Opening	Pre-natal care	Delivery assistance	Post-natal care	Infant care
<u>Total</u>	<u>89 centers</u>	<u>245,670</u>	<u>50,437</u>	<u>107,299</u>	<u>381,403</u>
1983	14 centers	4,740	915	820	9,887
1984	46 centers	9,040	2,460	3,338	10,957
1985	82 centers	31,808	9,049	17,632	67,987
1986	89 centers	91,256	17,987	35,470	118,753
1987	89 centers	108,826	20,026	50,039	173,819

Annual Operating Outcome of 11 PPFK Clinics

Year	<u>MCH</u>			<u>FP</u>				
	Pre-natal care	Delivery assistance	Post-natal care	Infant care	Vasec- tomy	Laparo- tomy	IUD	MR
1985	4,007	879	899	639	31,717	20,612	3,905	16,706
1986	14,471	3,939	5,275	10,350	31,717	22,390	5,496	18,095
1987	12,183	6,493	7,002	7,710	31,042	22,892	8,407	19,354

Number of Cases Referred to CMCH Centers in 1987
(Unit: pers.)

	Total	Health Center	MCH Center	Private Clinic
Pregnant Women	462	23	44	395

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Annual Production and Distribution of PPFK IEC Materials

		<u>Year</u>				
		<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>Total</u>
Videos	Production	5	7	8	11	
	31 Distribution	416	392	662	1,217	2,647
Slides	Production	3	2	2-	7	
	Distribution	190	220	190	145	745
Movies	Production	-	-	-	-	-
	Distribution	-	30	28	19	77
Cassettes	Production	-	3	-	2	5
	Distribution	-	2,854	-	36,981	39,835

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Annual Operating Outcome of IEC Mobile Van Teams

Category		Total	1984	1985	1986	1987
<u>FP</u>	<u>Total</u>	<u>75.195</u>	<u>3.750</u>	<u>28.623</u>	<u>20.602</u>	<u>22.220</u>
	Vasectomy	12,426	372	4,901	3,583	3,570
	Laparotomy	31,619	1,250	11,028	9,707	9,584
	IUD	5,752	470	1,884	1,567	1,831
	Oral Pill	5,278	337	2,371	1,063	1,507
	Condom	10,438	854	4,589	2,003	2,992
	M.R.	9,682	467	3,850	2,629	2,736
<u>MCH</u>	<u>Total</u>	<u>34.246</u>	<u>3.713</u>	<u>16.547</u>	<u>5.205</u>	<u>8.781</u>
	Counselling	21,311	2,300	9,541	4,264	5,206
	Treatment	8,775	893	5,203	933	1,746
	Test	1,124	-	-	-	1,124
	Immunization	3,036	520	1,803	8	705
<u>IEC</u>	<u>Total</u>	<u>16.466</u>	<u>1.669</u>	<u>4.916</u>	<u>4.009</u>	<u>5.872</u>
	Panel discussion	3,967	232	1,167	753	1,815
	Street campaign	7,485	1,003	2,321	1,827	2,334
	Campaign	1,102	167	293	323	319
	Audio-Visual materials	3,912	287	1,135	1,106	1,404

Annex 10

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

International Training Programs Organized in Korea for Overseas Participants a/

Workshop Title	Implementing Agency	Dates	Number of Countries sending participants	Number of Parti- cipants
-------------------	------------------------	-------	---	-----------------------------

Family Plan- ning and Pro- gram Management	KIPH	17-31 Aug. 1987	12	30
		27 June- 9 July 1988	10	30

Community Parti- cipation for Women Managers	PPFK	31 Aug. 11 Sept 1987	6	16
		10-22 Oct. 1988	11	30

Family Planning IEC Operations	PPFK	14-29 Sept. 1989	4	13
		25 May 9 June 1988	6	11

a/ These courses were funded by the Government and by United Nations Population Fund.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Changes in Vital Statistics and Population Composition, 1960-85

Major Indicator	Unit	1960	1970	1980	1985
Total Population	1,000 Persons	25,012	32,241	38,124	41,056
Population Density	Pers/km ²	254	319	385	414
Population Growth Rate	1/1,000	28.4	22.2	15.7	12.5
Crude Birth Rate	1/1,000	43.0	32.1	23.4	19.7
Crude Death Rate	1/1,000	15.0	9.4	6.7	6.2
Total Fertility Rate	Pers.	6.0	4.2	2.8	2.1
Urban	Pers.	5.4	3.1	2.5	2.0
Rural	Pers.	6.7	4.4	3.2	2.3
Child/Woman Ratio	%	60.2	59.2	40.5	36.8
Mean Age at Marriage					
Male	Year	25.4	27.1	27.3	27.8
Female	Year	21.6	23.3	24.1	24.7
Proportion of Fecund Age Women (15-49)	%	46.9	46.7	52.7	54.5
Life Expectancy at Birth					
Male	Year	51.1	59.8	62.7	64.9
Female	Year	53.7	66.7	69.1	71.3
Infant Mortality Rate	1/1,000 L. Births	61	55	32	30
Sex Ratio (male/female)	%	100.7	102.4	101.8	101.7
Age Composition					
0-14	%	42.3	42.5	34.0	30.6
15-64	%	54.8	54.4	62.2	65.2
65+	%	2.9	3.1	3.8	4.2
Dependency Ratio	%	82.6	83.8	60.7	53.4
Urbanization Ratio	%	28.0	41.1	57.3	65.4
Proportion of Seoul Population to Total	%	9.8	17.6	22.3	23.8

Source: National Bureau of Statistics, EPB, Population and Housing Census Reports, 1960-1980, Population Planning Committee, op. cit., 1986.

KOREA

FIRST POPULATION PROJECT (LOAN 1774-5 KO)

PROJECT COMPLETION REPORT

Contraceptive Services through Government-Supported Programs
(Unit: 1,000)

Year	IUD	Vasectomy	Tubectomy	Condom /a	Oral Pill /a	Total
1962	-	3.4	-	59.4	-	62.8
1963	1.5	19.9	-	129.8	-	151.2
1964	106.4	26.3	-	156.3	-	289.0
1965	226.0	12.8	-	191.7	-	430.5
1966	391.7	19.9	-	168.9	-	580.5
1967	323.4	19.7	-	152.7	-	495.8
1968	263.1	16.0	-	135.2	26.3	440.6
1969	285.5	15.5	-	147.7	91.2	539.9
1970	295.1	17.3	-	163.0	170.5	645.9
1971	293.7	18.6	-	161.2	199.7	673.2
1972	299.9	16.4	3.3	155.6	214.0	689.2
1973	325.9	19.7	4.8	176.0	234.7	761.1
1974	351.6	32.0	5.4	172.7	242.0	803.7
1975	343.9	43.0	14.5	196.7	240.1	838.2
1976	297.9	44.9	35.5	158.1	203.4	739.8
1977	281.8	53.8	181.4	103.2	178.9	799.1
1978	240.9	36.9	193.4	110.9	130.5	712.6
1979	188.7	25.9	195.3	80.7	108.7	599.3
1980	188.4	28.0	179.1	73.7	102.8	572.0
1981	167.2	31.3	164.8	79.0	91.3	533.6
1982	199.1	53.1	233.5	101.6	113.0	700.3
1983	213.1	97.2	329.8	127.3	82.4	819.8
1984	195.4	123.2	255.6	129.7	59.2	763.1
1985	176.9	110.1	217.6	124.9	44.0	673.5
1986	233.1	92.2	220.3	108.3	45.8	700.0
1987	242.5	83.0	211.9	144.2	39.3	720.9

/a Monthly average condom and oral pill users.

Source: KIPH, Monthly Family Planning Service Statistics, 1962-86.

COMMENTS FROM THE BORROWER

KOREA INSTITUTE FOR POPULATION AND HEALTH

**SAN 42-14, BULGWANG-DONG, EUNPYUNG-KU,
SEOUL 122-040, KOREA**

**CABLE: INSPONELTH, SEOUL
TEL : 355-6003**

20 August 1989

Mr. Graham Donaldson
Chief, Agriculture
Infrastructure and Human
Resources Division
O.E.D. The World Bank

Dear Mr. Donaldson,

Re: Korea-First Population
Project (Loan 1774-5 KO)
Project Completion Report

Thank you for your aforementioned letter asking comments for your report draft.

In general, we agree with the contents in your report except following mistakes.

- Page 12: 3, 19
14 MCH clinics should be 14 MCH centers.
- Page 23: Annex 1
KIFP Training Facility Total, Droppped should be Dropped.
- Page 24: Annex 2 Page 1 of 2
Kangweon should be spelled as Kangwon.
Choungbuk should be spelled Choongbuk.
In Kangwon province,
Iksan (not Iksam) A
Muju B (Not N)
Jangsu B
are not belong to Kangwon but to Cheonbuk Province.
- In Cheonbuk Province,
from Koryeong B down to Euisung B (7 centers) are not
belong to Cheonbuk but to Kyeongbuk Province.
- The type of Yeongduch MCH Center is B.
- Page 25: Annex 2 Government MCH Centers
From Kumsung A down to Kwangyang B (8 centers) are belong
to Cheonnam Province.

MISTAKES HAVE BEEN CORRECTED IN THE TEXT

20 August 1989

Page 26: Annex 3

In 1983 performance, the number of Nurse-aid are not 985
but 875.


In 1984 performance, the number of Nurse-aid are not 982
but 872.

Page 36: Annex 7

Objective number 65 should be 5.

Your continued cooperation would be very much appreciated.

Sincerely yours,


Dal-Hyun Chi, Ph.D.
President

c.c.: Director-General
Public Health Bureau
Ministry of Health and Social Affairs
Seoul

